

The logo for Sungard, consisting of the word "SUNGARD" in a bold, white, sans-serif font on a dark grey background.

SUNGARD

ENTERPRISE DATA MANAGEMENT
WHITE PAPER SERIES

MANAGED SERVICES FOR ENTERPRISE DATA MANAGEMENT

*An Evolutionary Approach to
Data Management*

EXECUTIVE OVERVIEW

For financial services institutions gaining control over enterprise data is a fundamental imperative that affects performance metrics such as customer service, brand reputation, compliance initiatives and competitive advantage. Without it, duplication of effort, inconsistent data quality, and limited usability will continue to affect costs and efficiencies throughout the enterprise. But establishing this control—and data quality—is no easy task.

How then can organizations manage their data in an efficient, cost-effective way?

One approach is through Enterprise Data Management (EDM), a strategy for consolidating information management efforts and in many cases, the data itself, across the entire organization. At the onset of EDM, financial industry experts began proselytizing about the merits of creating a single “Golden Copy,” a common data set that is standardized, upon which analytics and derived data can then be applied for applications in risk management and in the back office. But, the overwhelming scope of these projects, along with differing needs and processes between multiple departments and the inherent inflexibility of the model itself, often netted disappointing results. Many organizations found themselves over budget and far from project completion. These known issues associated with EDM related projects in the past have led to the evolution of a new EDM model, namely the Managed Data Service; a model that offers the benefits of the original Golden Copy concept, yet avoids its common pitfalls.

This paper will explore how outsourcing can help lead to improvements in Enterprise Data Management, such as improved data quality, improved service delivery and faster time to market. This paper will also introduce an entirely different way to outsource EDM—using a managed services approach. The Managed Data Service model addresses the full spectrum of needs surrounding data management—from collection and cleansing to security and disaster recovery.

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INTRODUCTION

Today, as financial services institutions struggle to manage multiple data providers, the traditional approach to data management is simply no longer meeting the demands of the business. Large Tier 1 firms inherit data management teams, databases and systems through acquisitions and other business opportunities and often continue to manage them as individual data silos. Costs continue mounting and the quality of data suffers. More importantly, however, industry drivers are forcing these companies to closely examine, and ultimately improve upon, the ways in which they manage their data. Tier 2 and 3 firms want a comprehensive yet affordable solution that will scale with their business requirements. These drivers, and an overview of the associated EDM strategy, include:

Increasing revenue.

Tier 1 financial institutions are looking to create cost-effective, consolidated data management platforms that can keep pace with the business and scale up and down as required. Developing entirely new data management platforms that help to promote business agility, which may also include the rationalization and replacement of legacy systems, can help enable new revenue opportunities and support new or expanded business activities.

Decreasing risk.

As financial institutions trade an increasingly larger number of diverse asset classes, there is a greater need for standardized processes and procedures to help ensure a higher level of data quality. In addition, financial institutions want to ensure data consistency across platforms that can be achieved by using standardized data definitions and data model. One way to achieve this is by having a single institution-wide process for collecting, normalizing and cleansing market and reference data. Through this process, all data adheres to the same quality-control measures, helping ensure a higher level of consistency and accuracy. This improvement in data quality with audit capabilities helps to minimize risk, thus decreasing a financial institution's exposure to mistakes and errors in trades, client reporting, and the array of downstream applications that consume data.

Improving readiness in an increasing regulatory environment.

The need to adhere to an increasing number of industry regulations, including Basel II, Sarbanes-Oxley, MiFID and others means that financial institutions need a data management strategy, with auditable procedures and processes that allows them to monitor and archive all of the necessary information. Businesses must address both the increasing pace with which regulations are being introduced and the sheer number of global regulatory efforts. To take MiFID as an example, if an international organization has a regional branch in the EU offering investment advice in financial services then that organization comes under MiFID. The cost of failing to adhere to regulations is carrying increased penalties with a sharp rise in the size of fines and possible closure of operations. Commercially, if new product development is slowed by the requirement to meet electronic reporting or specific auditing procedures, revenues may be unfavorably impacted. A flexible EDM system will help reduce that time to market.

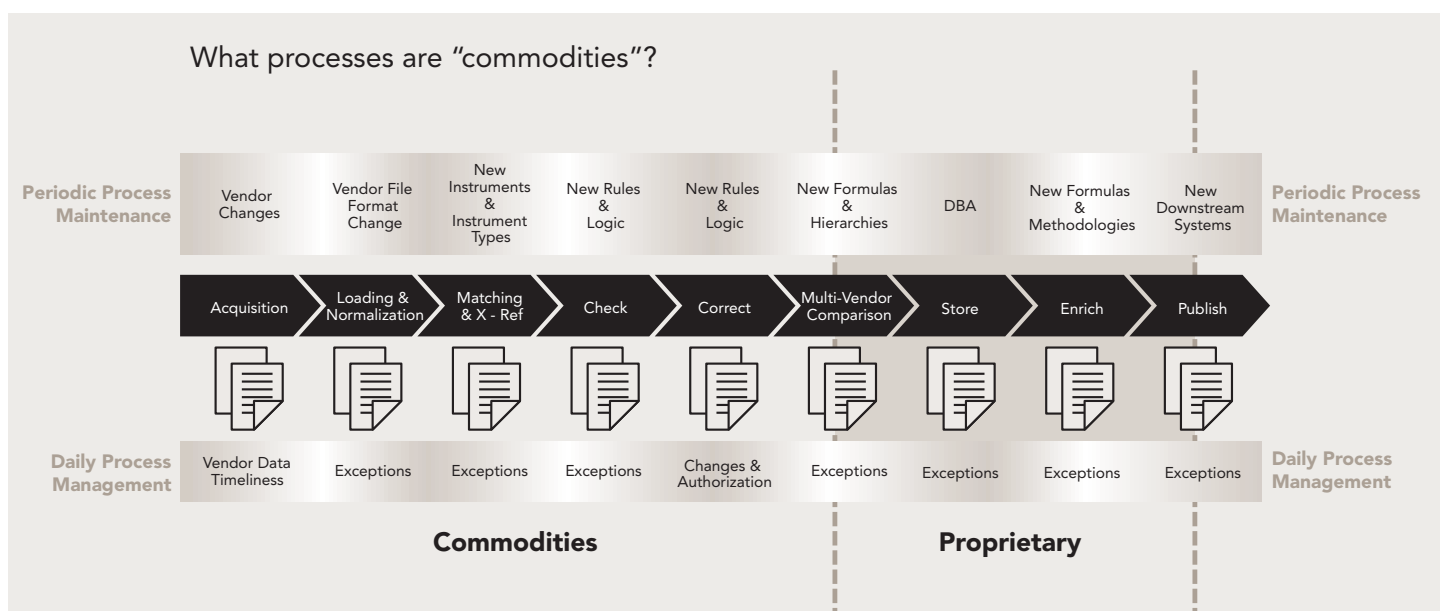
Reducing costs.

Organizations can help reduce costs by not only eliminating the redundant costs of multiple siloed data management operations but also by leveraging the economies of scale inherent in a shared utility outsourced managed data service model.

THE PROMISE OF EDM

The concept of enterprise data management is not new. But, for the financial industry, it has become increasingly important over the past decade. Financial institutions recognized that managing and maintaining multiple data stores increased costs, created duplication of effort, and caused inconsistent data quality. Furthermore data management was seen as neither a core competency nor a source of competitive advantage for most financial institutions. Faced with the pressures to reduce risk and costs and improve revenues and regulatory readiness, these institutions sought to employ a more sophisticated approach to data management. Many were intrigued by the benefits of developing a "Golden Copy"—or centralized dataset—in which all data required throughout the organization was housed, cleansed, and processed by using consistent standards. By replacing a wide number of decentralized data management solutions with a centralized or singular "Golden Copy," companies could help improve data quality and management.

However, as institutions began Golden Copy initiatives, many struggled with the sheer size of the project, competing requirements from business unit customers, the lengthy timeframe, escalating costs and corporate politics that served to impede progress. For example, one application area might require a Bloomberg data feed, while another requires a Reuter's data feed. In addition, each department may have their own unique data definition requirements and timelines that dictate the types of rules needed to cleanse the data. Overall, institutions found a single Golden Copy to be too inflexible and unable to easily accommodate a wide variety of global requirements and a multitude of different instruments.



The promise of EDM is that financial organizations can establish a standard body of reliable, company-wide information that can be used to help effectively meet regulatory mandates and greatly reduce duplication of effort.

Creating a “Golden Copy” repository is not without its challenges. To do so, organizations must begin the process of unifying the large number of data silos, processes, and support structures—while still meeting the needs of individual business units. It requires a united management commitment and considerable financial investment to develop the required infrastructure and handle the business process changes. Moreover, these projects can become bogged down in political red tape, as proponents wrangle for consensus—greatly extending go-live dates and attendant implementation costs. As such, they can take years to complete. Few organizations have the bandwidth, long-term resource allocation, focus and in-house expert resources to tackle this sizable effort.

Over the past decade, SunGard looked for ways to improve its own data management processes that span multiple business units. Leveraging its own strengths and expertise led to the realization that some parts of the process can be handled in a commoditized fashion—before proprietary content or the firm’s intellectual property is added. These include processes such as data acquisition, loading and normalization, matching and cross-referencing of data and identifiers, checking and correcting.

SunGard discovered that developing a managed data service utility that supports multiple Golden Copies in the data repository, in which numerous organizations can benefit from shared common processes, data feeds best practices and methodologies—while still meeting custom requirements—negated the downfalls of the traditional Golden Copy, yet still provided the same benefits.

AN INDUSTRY IN SEARCH OF A SOLUTION: THE NEXT LOGICAL STEP

Through outsourcing, a company frees up internal staff and resources that can be dedicated to strategic growth initiatives that will help improve the bottom line. The contractual nature of an outsourced arrangement increases a disciplined stay-the-course approach. Moreover, formal SLAs typically result in higher quality of service. Outsourcing has been proven successful in IT and for specific processes, but can it work for EDM? In fact, not only can certain aspects of EDM be outsourced, but doing so provides benefits that many financial institutions would not be able to achieve with an in-house solution. These include the ability to help leverage economies of scale and higher quality data, reduce risk and operational and administrative headaches, more easily scale up or down, and enhance regulatory readiness.

Are financial organizations open to outsourcing EDM?

Recent research indicates that they are. In 2005, SunGard commissioned an independent study to gauge reactions to the idea of outsourcing data management, specifically for reference data.

An overwhelming majority of survey respondents—95%—were open-minded to the outsourcing concept. In particular, when asked if they would consider outsourcing aspects of their reference data management, they said “yes.” This acceptance of outsourcing EDM as a viable data management strategy is a product of timing. The research also showed that the majority of organizations acknowledged traditional data management techniques were no longer adequate and that minimizing redundancies and creating efficiencies in the process were goals moving forward. In fact, 100% of respondents are moving to a centralized model to gain these efficiencies.

The survey polled 20 national and international executives involved in reference data sourcing, management and strategy. Of those 20 executives, 45% were from sell-side firms, 35% were from buy-side firms and 20% were from custodians.

FLEXIBLE OUTSOURCING MODELS FOR EDM

EDM outsourcing helps minimize the redundancies inherent in collecting and cleansing reference and pricing data. There are several ways in which financial institutions can leverage outsourcing as part of a data management strategy. And, there is the ability to outsource only the processes or specific data that makes sense. For example, organizations may choose to outsource data collection, loading and exception management functions, while retaining data storage and distribution to applications and in-house consumers. Alternatively the focus may be on content for specific asset classes. In fact, it is the organization's business model that will determine how and what to outsource. Outsourcing models include:

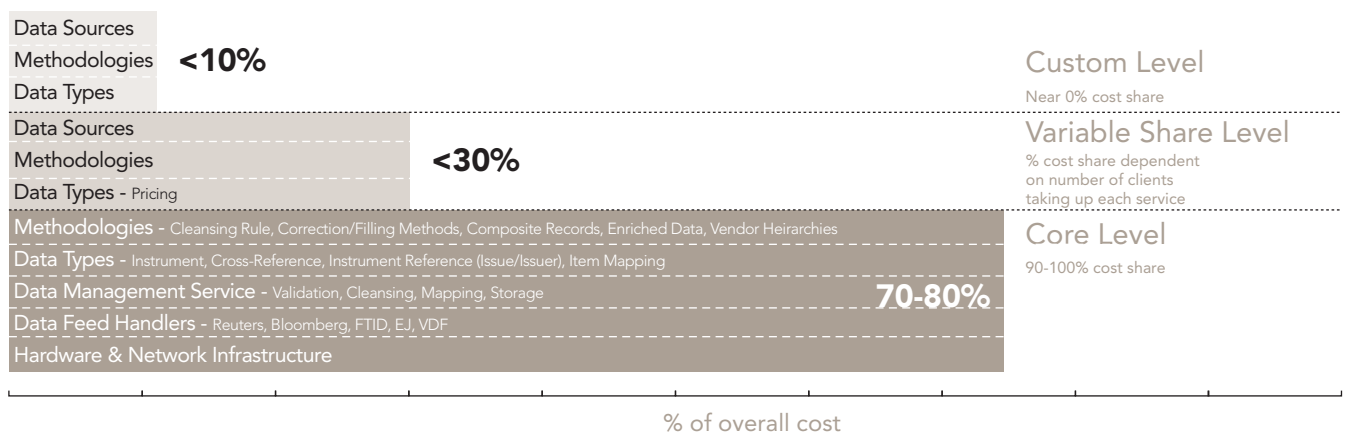
Lift-out: In this scenario, an organization can turn over its existing data management organization—including software, hardware, and human resources—to another firm who will then run and operate it. In this scenario, the organization benefits from the expertise the outsourcer brings to the table, however, since the “lifted out” data management is company-specific, the economies of scale and scalability are not as great as with the full managed service model.

Off-shoring: With off-shoring, financial organizations retain a large portion of data management functions and systems internally and outsource only the people aspects to a lower wage area, such as India or Eastern Europe. This approach had promised to bring significant cost savings; however, it has been shown that the cost savings may not be as high as once thought. This is due to the need for an additional project management investment to assist in the smooth running of the outsourced operation and a narrowing wage gap. Further, it is difficult to find and retain specialized financial data expertise offshore.

Managed service: As the approach to enterprise data management has evolved, so has the way in which it can be achieved. Beginning with its own internal requirements, SunGard developed a model for data management outsourcing that provides end-to-end support for critical functions, including data collection and aggregation, ongoing maintenance, audit trail, help desk and disaster recovery. This managed service approach goes beyond traditional outsourcing in that SunGard acquires, cleanses, and aggregates the data, delivering as many highly usable Golden Copies as are necessary to satisfy business requirements including the addition of proprietary calculations. In addition, SunGard maintains and manages the entire technical infrastructure needed to produce and maintain the centralized data warehouse.

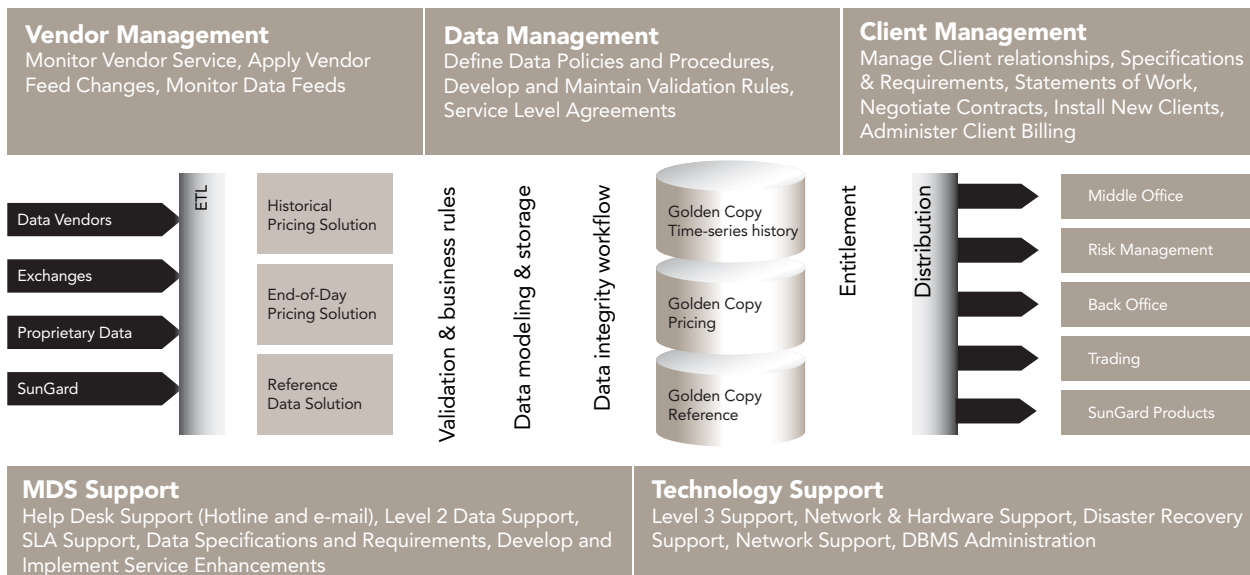
Leveraging this model, companies can share as much as 75% of the overall infrastructure and services helping them realize significant cost savings. These come from the sharing of common resources and processes typically used in data management for financial institutions, including the hardware and software infrastructure needed to support these efforts; data feed handlers; data management services, such as validation, cleansing, mapping and storage; data types, such as instrument and cross-reference; and methodologies, such as cleansing rules, correction/filling methods, composite records, etc.

Three-level model based on take-up rate for each service



This managed services solution helps reduce the organization's operational overhead in managing its non-proprietary market and reference data, while giving it more opportunity to focus on derived and calculated data, customer data and transaction information, and providing total control over the process. Such a model also helps provide efficiencies and scalability. Ultimately, however, SunGard's Managed Services EDM offering helps an organization to keep pace with changing opportunities, moving into and out of markets, products and geographies seamlessly supported by a responsive, scalable infrastructure.

Managed Data Services



THE BENEFITS OF OUTSOURCING EDM

Outsourcing is a means by which organizations can fully realize the promise of EDM. By working with a provider to handle the commoditized parts of the data management process, financial institutions may realize numerous benefits:

Efficiencies and lower costs through economies of scale: When a single infrastructure can be used by many organizations to run similar functions, there will be economies of scale. With an outsourced EDM model, particularly the managed services model, basic functions of collecting, integrating and cleansing non-proprietary data are performed on the same infrastructure for a number of clients, providing cost benefits and efficiencies that would be harder to achieve otherwise.

Dramatic reduction in implementation time. The managed service “factory” is already up and running at the beginning of the project. All that remains is for aspects of this “factory” to be configured to meet those requirements that are unique to the particular client. An in-house solution must develop all the infrastructure of the factory from scratch. Not surprisingly, the managed service offers a dramatically reduced implementation time and allows the other benefits of EDM to be delivered sooner.

Reduction in business risk: Leveraging a proven infrastructure and processes from an organization with extensive expertise in EDM can help companies reduce their business risk by improving data quality.

Enables a tighter focus on core business strategies: The ability to outsource “commoditized business processes” allows organizations to apply more resources and energy to the core business. A more precise focus on growth-related initiatives can have a positive impact on an organization’s bottom line.

Delivery of high data quality and improved timeliness: Through this type of managed outsourcing, financial organizations can benefit from standardized data management procedures and a unified data cleansing mechanism. The result? Higher quality data in less time than an in-house operation could deliver.

Reduction in operational and administrative burdens: Events that were once an operational nightmare are no longer even a blip on the radar—they become a non-event. For example, format changes from data sources are handled proactively by the managed data service provider. The customer is kept informed of operational issues via alerts and help desk support.

Scalability and flexibility to expand or reduce the size and capability of functions:

The ability to expand the scope of operations quickly is essential to success. By outsourcing EDM, organizations can leverage the outsourcer's infrastructure and resource pool. Therefore, organizations expanding into different geographies can do so without having to heavily invest in new infrastructures or data sources. And companies can more quickly adapt to changes in the marketplace, handling new products as they come online seamlessly.

Improvements in data management operations:

By contractually obligating an outsourcer to deliver on a service level agreement, it is easier to monitor SLA progress and improve the chances for success. Typically, contracted SLAs are more stringent than in-house measures.

Discussing the future of outsourcing, Aite senior analyst Adam Honore adds, "Aite Group anticipates EDM will follow other commoditized business models and become more affordable, practical, and easier to implement with practice and development. As the experience level increases, and as the Tier-One pool shrinks, Tier-Two and Tier-Three customers may benefit greatly from the expertise gained by these people and may be able to leverage that experience in a one-to-many solution."

(Aite Group, 2006)

OVERCOMING THE BARRIERS TO OUTSOURCING EDM

For a number of firms, a fast and efficient way to implement an EDM strategy is through outsourcing. However, outsourcing EDM as a managed service business model is still relatively new. And there are still questions to address and concerns to overcome, such as:

Loss of control: A common misconception of EDM outsourcing is that a company loses control. While a company does cede the day-to-day tasks involved in collecting, cleansing, and managing data, it is still possible to retain control. To do so, companies can and should structure EDM outsourcing arrangements and contracts in such a way—via SLAs, business rules and specific parameters—that help ensure their data quality and business process standards are upheld throughout the entire process.

Liability and indemnity: Who takes responsibility for bad data? Can indemnity be secured for corporate actions based on misinformation? These are valid concerns that need to be addressed. Even with stringent checks and balances, errors occur. The problem could lie with any number of data vendors or the service provider; as such, securing indemnity is difficult. In order to minimize liability, however, organizations should seek data quality warranties through well-crafted SLAs. Professional consulting organizations that follow proven best practices and have extensive knowledge and expertise can further minimize the risk associated with bad data.

Scalability: Another common concern involves the service provider's operational and technical infrastructure. Is it able to scale to meet the changing needs of its customers? It is important to understand a service provider's capabilities, and identify the existing IT infrastructure and future plans to update and grow the technology. It is also important for companies to work with service providers that are operationally structured in a way that meets customer operational requirements.

Experience: In EDM outsourcing, many welcome the expertise of a third-party and what it can bring to the table. But, questions arise as to the qualifications of those managing the data. Do they have the expertise in regional markets or in specialty instruments that is needed? Do they understand the technical considerations for creating an enterprise data management solution, as well as how the business will use the data? This holistic knowledge of how the data is used is critical in defining the point at which intellectual property must be added, and building that into the process. When establishing a relationship with an outsourcer, it is also important for organizations to understand the background of those on staff, and the criteria used for hiring. It is a matter of finding an organization with similar standards in terms of quality of people and with a similar commitment to ongoing education and training.

SEVEN KEY STEPS TO CONSIDER

Moving to an outsourced EDM model is not overly complicated, however it does require a fair amount of internal due diligence to help provide a smooth transition. Outlined below are seven key steps organizations may need to take when outsourcing EDM. By completing these steps, companies can make the most of the new model, minimize surprises and help reduce service interruptions.

1. Establish senior management support: By garnering C-level support both financially and philosophically, an EDM outsourcing mandate will be more widely accepted and help ease the cultural and organizational transition needed to support it. Achieving executive-level commitment begins with a management presentation that highlights the business benefits of EDM outsourcing, citing examples of how it can reinforce corporate strategies. Often a steering group is formed to review milestones and keep the project on track.

2. Conduct project requirements scoping: Once the executive team has bought into the EDM concept, the next step is to involve each business unit directly, understanding unique requirements and preferences from a data consumption perspective, including the type of data required, time limits, key sources and support. The needs of the business unit customers must drive the process.

At this step, it is critical to look at the project from an end-user perspective—helping promote general acceptance and usability. This step will also help companies more accurately frame the project in terms of size and complexity.

3. Conduct business case analysis: To move forward, most organizations require a formal business case that will help justify the project cost, deliverables and benefits. In an outsourcing situation, the business case typically involves a comparison of an outsourced solution versus an in-house solution. It is important to not just focus on the cost savings that can be achieved in terms of ongoing operational and upfront infrastructure costs, but also highlight the benefits that can result from implementing such an EDM solution namely, consistency and quality improvements, enhanced support services and the ability to scale and bring content online faster and more efficiently.

4. Define Service Level Agreements: With an outsourced model, SLAs help enable organizations to establish and retain control over the quality and timeliness of data. They document how services will be delivered and measured and provide clear expectations for both parties. Organizations should get as specific as possible, covering items such as data timeliness, quality levels, turn-around time on support calls and how often and in what format reports will be issued. Ultimately, SLAs document expectations and offer a mechanism by which to measure if a vendor is performing satisfactorily.

- 5. Create a migration/integration plan:** The move to outsourcing will be new for many in the organization and steps should be taken to minimize disruptions to day-to-day operations. Therefore, it is important to take a phased approach, working with one or two business units at a time. This approach allows organizations to address any issues with a small user group early on and establish a groundswell of acceptance that will help ease the cultural shift and pull other business units into using the managed service.
- 6. Identify phased implementation of deliverables and capabilities:** The previous step addressed the need to bring users online in phases. In conjunction with that effort, organizations should consider bringing data online in phases as well. This can be achieved by going live initially with a certain data set [e.g. by data type, asset class or geography] and adding more incrementally as the new infrastructure and processes gain acceptance.
- 7. Attain end-user sign-offs:** Once the project implementation begins, it is important to have an active dialogue with the user community, review the system plans and attain sign-offs at each milestone. In doing so, users will recognize their role as key players and take ownership of the solution. Plus, it offers an opportunity to gain feedback on the process and the new model, by asking specific questions. Is it meeting the needs of the business unit? Have there been any issues? How were they addressed? Does the SLA need to be revisited or modified? This will help continually improve the system and enhance long-term usability.

CONCLUSION

In light of today's business challenges, such as meeting regulatory compliance, reducing business risk, speeding time-to-revenue, and managing costs, the traditional processes used by financial organizations to manage data are no longer effective. In fact, they can hamper a firm's competitive advantage. New approaches to data management have emerged and continue to evolve. SunGard's Managed Services for EDM, for example, provides these firms with a way to help leverage shared costs, minimize risk through improved data consistency and accuracy, as well as focus internal resources on more strategic initiatives.

SunGard is committed to helping organizations achieve their EDM outsourcing vision. With one of the most robust infrastructures available, along with a proven managed services model, SunGard is highly qualified to provide the technological and operational support financial institutions need to successfully outsource data management. SunGard's EDM Solutions actively leverage SunGard's Common Services Architecture (CSA) standards and repository of software components for both product development and as a source of software that can be integrated and deployed at the client site for in-house solutions.

Within SunGard, Enterprise Data Management is one of five corporate strategic initiatives, the others being Alternative Investments, Common Services Architecture (CSA), Prime Brokerage and Compliance. The EDM implementation strategy is closely aligned with SunGard's Common Services Architecture. EDM will benefit from the CSA by sharing current components such as the rules matching engine, entitlements, charting, reporting as well as future developments such as single sign-on.

SunGard is a founder and active member of the EDM Council—an executive forum created to promote EDM and related standards and solutions to help meet today's data management challenges while providing assistance on data management issues to its members. Today, SunGard is leading a work stream focused on the intersection of regulatory compliance and EDM.

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